#### EQUIPMENT LIST "A" PROJECT DESCRIPTION

### GENERAL

THIS PORTION OF THE PROJECT INVOLVES THE INSTALLATION OF NEW TRAFFIC SIGNALS AT THE INTERSECTIONS OF MD 202 (LARGO ROAD) @ I-95/I-495 NORTHBOUND OFF RAMP, MD 214 (CENTRAL AVE.) @ I-95/I-495 NORTHBOUND OFF RAMPS, ARENA DRIVE @ I-95/I-495 NORTHBOUND OFF RAMPOFF RAMP AND THE RECONSTRUCTION OF THE EXISTING TRAFFIC SIGNAL AT THE INTERSECTION OF MD 214 (CENTRAL AVE.) -@ I-95/I-495 SOUŤHBOUND RAMPS.

MD 202 (LARGO ROAD) IS ASSUMED TO RUN IN AN EAST-WEST DIRECTION.

MD 214 (CENTRAL AVE.) IS ASSUMED TO RUN IN AN EAST-WEST DIRECTION.

ARENA DRIVE IS ASSUMED TO RUN IN AN EAST-WEST DIRECTION.

### INTERSECTION OPERATION

1. MD 202 (LARGO ROAD) @ I-95/I-495 NORTHBOUND OFF RAMP

THE INTERSECTION WILL OPERATE IN A NEMA FOUR-PHASE, FULL TRAFFIC-ACTUATED MODE WITH THE MD 202 (LARGO ROAD) APPROACHES OPERATING CONCURRENTLY AND THE I-95/I-495 NORTHBOUND OFF RAMP OPERATING ALONE.

2, MD 214 (CENTRAL AVE.) @ I-95/I-495 NORTHBOUND OFF RAMP

THE INTERSECTION WILL OPERATE IN A NEMA THREE-PHASE, FULL TRAFFIC-ACTUATED MODE WITH THE MD 214 (CENTRAL AVE.) APPROACHES OPERATING CONCURRENTLY AND THE 1-95/1-495 NORTHBOUND OFF RAMP OPERATING ALONE.

3. MD 214 (CENTRAL AVE.) @ I-95/I-495 SOUTHBOUND RAMPS

THE INTERSECTION WILL OPERATE IN A NEMA FOUR-PHASE, FULL TRAFFIC-ACUTATED MODE WITH THE MD 214 (CENTRAL AVE.) APPROACHES OPERATING CONCURRENTLY AND THE I-95/I-495 SOUTHBOUND OFF RAMP OPERATING ALONE

4. ARENA DRIVE @ I-95/I-495 SOUTHBOUND RAMPS

THE INTERSECTION WILL OPERATE IN A NEMA THREE-PHASE, FULL-TRAFFIC-ACTUATED MODE WITH THE ARENA DRIVE APPROACHES OPERATING CONGURRENTLY AND THE SOUTHBOUND RAMP OPERATING

5. ARENA DRIVE @ I-95/I-495 NORTHBOUND OFF RAMP

THE INTERSECTION WILL OPERATE IN A NEMA FOUR-PHASE, FULL-TRAFFIC-ACTUATED MODE WITH THE ARENA DRIVE APPROACHES OPERATING CONCURRENTLY AND THE NORTHBOUND OFF RAMP OPERATING ALONE.

### CONTROLLER REQUIREMENTS

1. MD 202 (LARGO ROAD) @ I-95/I-495 NORTHBOUND OFF RAMP

INSTALL A FULL-TRAFFIC ACTUATED, EIGHT-PHASE CONTROLLER WITH TWO (2) FOUR-CHANNEL, TIME DELAY OUTPUT LOOP DETECTOR AMPLIFIERS, VIDEO INTERFACE EQUIPMENT (1-4 CAMERAS). INTERSECTION MONITOR WITH BATTERY BACKUP FOR PHONE DROP AND ASSOCIATED HARNESSES HOUSED IN A NEMA SIZE "6" BASE MOUNTED CABINET

2. MD 214 (CENTRAL AVE.) @ I-95/I-495 NORTHBOUND OFF RAMP

INSTALL A FULL-TRAFFIC ACTUATED, EIGHT-PHASE CONTROLLER WITH TWO (2) FOUR-CHANNEL TIME DELAY OUTPUT LOOP DETECTOR AMPLIFIERS, VIDEO INTERFACE EQUIPMENT (1-4 CAMERAS). INTERSECTION MONITOR WITH BATTERY BACKUP FOR PHONE DROP AND ASSOCIATED HARNESSES HOUSED IN NEMA SIZE "6" BASE MOUNTED CABINET:

3. MD 214 (CENTRAL AVE.) @ I-95/I-495 SOUTHBOUND RAMPS

THE EXISTING BASE MOUNTED CABINET AND CONTROLLER WILL BE USED. INSTALL VIDEO INTERFACE EQUIPMENT (1-4 CAMERAS) AND ONE (1) FOUR-CHANNEL, TIME-DELAY-OUTPUT, LOOP DETECTOR AMPLIFIER.

4. ARENA DRIVE @ I-95/I-495 SOUTHBOUND RAMPS

INSTALL A FULL-TRAFFIC ACTUATED, EIGHT-PHASE CONTROLLER WITH ONE (1) FOUR-CHANNEL TIME DELAY OUTPUT LOOP DETECTOR AMPLIFIERS, VIDEO INTERFACE EQUIPMENT (1-4 CAMERAS). INTERSECTION MONITOR WITH BATTERY BACKUP FOR PHONE DROP AND ASSOCIATED HARNESSES HOUSED IN NEMA SIZE "6" BASE MOUNTED CABINET.

5. ARENA DRIVE @ I-95/I-495 NORTHBOUND OFF RAMP

INSTALL A FULL-TRAFFIC ACTUATED, EIGHT-PHASE CONTROLLER WITH ONE (1) FOUR-CHANNEL, TIME DELAY OUTPUT LOOP DETECTOR AMPEIBLIERS, VIDEO INTERFACE EQUIPMENT (1-4 CAMERAS). INTERSECTION MONITOR WITH BATTERY BACKUP FOR PHONE DROP AND ASSOCIATED HARNESSES HOUSED IN A NEMA SIZE "6" BASE MOUNTED CABINET.

## PHONE DROP

UPON COMPLETION OF THIS PROJECT, THE CONTRACTOR SHALL NOTIFY MR. ROBERT SNYDER OF SHA AT (410) 787-7635 TO ARRANGE FOR THE PHONE LINE INSTALLATION, THE CONTRACTOR IS TO PROVIDE MR. SNYDER THE NEAREST STREET ADDRESS, ZIP CODE, AND PHONE NUMBER.

### MAINTENANCE OF TRAFFIC

THE FOLLOWING TRAFFIC CONTROL STANDARDS SHALL BE REFERENCED FOR THE PROJECT. ADDITIONAL TRAFFIC CONTROL STANDARDS MAY BE USED AS DIRECTED BY THE ENGINEER.

STANDARD NO. MD-104.04-01 (SHOULDER WORK)

STANDARD NO. MD-104.04-13 (LEFT TURN BAY CLOSURE)

STANDARD NO. MD-104.04-03 (LEFT LANE CLOSURE)

STANDARD NO. MD-104.04-07 (CENTER LANE CLOSURE)

STANDARD NO. MD-104.04-05 (RIGHT LANE CLOSURE)

STANDARD NO. MD-104.04-15 (INTERSECTION LEFT LANE, TURN BAY)

# PROJECT CONTACTS

THE CONTACT PERSONS FOR SHA ARE AS FOLLOWS:

MR. BRIAN YOUNG PHONE: (301) 513-7318 ASSISTANT DISTRICT ENGINEER -

TRAFFIC (PRINCE GEORGE'S)

ASSISTANT DISTRICT ENGINEER - MAINTENANCE PHÖNE: (301) 513-7304

MR. AUGIE REBISH DISTRICT UTILITY ENGINEER PHONE: (301) 513-7350 MR. RICHARD L. DAFF, SR. CHIEF, TRAFFIC OPERATIONS DIVISION PHONE: (410) 787-7630

A. EQUIPMENT TO BE SUPPLIED BY THE SHA

DESCRIPTION QUANTITY FOUR-CHANNEL, TIME-DELAY-OUTPUT, LOOP DETECTOR AMPLIFIER 9016 8 EACH EIGHT-PHASE, FULL-TRAFFIC-ACTUATED CONTROLLER WITH INTERSECTION 9044 4 EACH MONITOR HOUSED IN A NEMA SIZE "6" BASE MOUNTED CABINET 9086 VIDEO INTERFACE EQUIPMENT: 1-4 CAMERAS 5 EACH 9571 268 S.F. SHEET ALUMINUM SIGNS TO CONSIST OF : - 5 EACH R3-1 SIGN (30 IN. x 30 IN.) - MAST ARM MOUNT - 5 EACH R3-2 SIGN (30 IN. x 30 IN.) - MAST ARM MOUNT - 7 EACH R3-5L SIGN (30 IN. X 36 IN.) - MAST ARM MOUNT R3-5R SIGN (30 IN. X 36 IN.) - MAST ARM MOUNT ASSOCIATED SHIELD ASSEMBLY "WEST, MD, LEFT ARROW" (48 IN. x 75 IN.) - POLE MOUNT W3-3 SIGN (36 IN. x 36 IN.) WITH "NEW" PANEL (24 IN. x 24 IN.) AND FLAG - GROUND MOUNT W3-3 SIGN (48 IN. x 48 IN.) WITH "NEW" PANEL (24 IN. x 24 IN.) AND FLAG - GROUND MOUNT - 2 EACH D-3(1) SIGN (VARIABLE x 16 IN.) - MAST ARM MOUNT.

## EQUIPMENT LIST "C"

C. EQUIPMENT TO BE REMOVED AND RETURNED TO SHA

ALL REMOVED SIGNAL MATERIALS SHALL BECOME PROPERTY OF THE CONTRACTOR

-(OVER 100 YEARS) A Commitment to Excellence

STATE HIGHWAY ADMINISTRATION TRAFFIC ENGINEERING DESIGN DIVISION

I-495 AT ARENA DRIVE FROM MD 202 TO MD 214

Whitman, Requardt and Associates, LLP

Engineers, Architects and Planners

801 South Caroline Street Baltimore, Maryland 21231 410-235-3450

GENERAL INFORMATION SHEET SCALE NONE DATE AUGUST 23, 2007 CONTRACT NO. PG6385172 COUNTY PRINCE GEORGE'S DESIGNED BY S. Bloss DRAWN BY S. Bloss LOGMILE CHECKED BY N. Leary TIMS NO. FAP NO. AC-IM-95-3(177)N TOD NO. SHEET NO. 13 OF 13 DRAWING TSP-12 OF 12 TS NO.

STATE OF MARYLAND DEPARTMENT OF TRANSPORTATION

OFFICE OF TRAFFIC & SAFETY

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